

I claim:

1. An integral resilient plug for substantially filling a space between insect entry openings in interconnected fence components, comprising:

a main body portion having a longitudinal axis and four sides, said sides having an equal length and an equal width and an equal thickness, said sides being joined to each other at right angles;

a plurality of shoulders of uniform thickness protruding from said main body portion, said shoulders being spaced from each other along said longitudinal axis of said main body portion, each of said shoulders having a segment that is integral with one of said four sides of said main body portion, each of said segments having a continuous upper flat surface and a continuous lower flat surface, said upper and lower flat surfaces extending perpendicularly from the sides of said main body portion in parallel planes that are perpendicular to said longitudinal axis;

an end cap having a flat inner surface integral with said main body portion that closes one end of said main body portion;

said plug being movable in a direction that is perpendicular to said longitudinal axis and parallel to said planes of said flat surfaces of said segments into engagement with one of said fence components so as to block said insect entry openings.

2. The integral resilient plug defined in claim 1, wherein said shoulders are spaced from each other at substantially equal distances along said longitudinal axis of said main body portion

3. The integral resilient plug defined in claim 1, wherein said segments of said shoulders are joined to each other at a right angle at each of their ends so that each shoulder continuously circumscribes said main body portion

4. The integral resilient plug defined in claim 1, wherein said upper and lower flat surfaces of said segments have outer edges that terminate at the same distance from the sides of said main body portion.

5. The integral resilient plug defined in claim 1, further comprising: said shoulders being spaced from each other at substantially equal distances along said longitudinal axis of said main body portion, said segments of said shoulders being joined to each other at a right angle at each of their ends so that each shoulder continuously circumscribes said main body portion, and said upper and lower flat surfaces of said segments have outer edges that terminate at the same distance from the sides of said main body portion.

6. The integral resilient plug defined in claim 1, further comprising: said main body portion of said plug being hollow with one end closed by said end cap and an opposite end open to the atmosphere, said end cap having outer peripheral edges that extend past said main body portion beyond a distance that outer edges of said flat surfaces of said segments protrude beyond the sides of said main body portion, and said inner surface of said end cap being parallel to said parallel planes of said flat surfaces of said segments.

7. The integral resilient plug defined in claim 1, further comprising: said main body portion of said plug being hollow with one end closed by said end cap and an opposite end open to the atmosphere, said shoulders being spaced from each other at substantially equal distances along said longitudinal axis of said main body portion, said segments of said shoulders being joined to each other at a right angle at each of their ends so that each shoulder continuously circumscribes said main body portion, said upper and lower flat surfaces of said segments have flat outer edges

that terminate at the same distance from the sides of said main body portion, said end cap having outer peripheral edges that extend past said main body portion beyond said distance that said outer edges of said flat surfaces of said segments terminate past the sides of said main body portion, and said inner surface of said end cap being parallel to said parallel planes of said flat surfaces of said segments.

8. A fence, comprising:

a hollow post having a flat side, a generally rectangular hole in said flat side for insertion of a rail into said post, said hole being sufficiently large to permit flying insects such as bees, wasps and the like to enter and nest in said post;

a hollow, generally rectangular rail having an open terminal end, said rail having three continuous elongated flat sides, one of said flat sides being horizontal, the remaining two flat sides being vertical and parallel to each other, said rail having another side that is open to the atmosphere running its entire length, said flat sides being joined to each other at right angles so that said rail has the configuration of a three sided square with one open side that faces downwardly, each of said flat sides having an inside surface that is exposed to the atmosphere through said open side, one of the flat vertical sides having a ledge at its lower end that projects from its inside surface into said open side toward the other vertical side, said ledge having an upper surface, said one flat vertical side having a rib on its inside surface that extends toward said other vertical side, said rib having a lower surface, said upper surface of said ledge and said lower surface of said rib being parallel and spaced apart inside of said rail;

an open terminal end of said rail being inserted into said hole in said post with said open side of said rail facing downwardly, said

open side of said rail and said open terminal end of said rail providing a continuous atmospheric path enabling flying insects to enter said post through said hole; and

an integral resilient plug for substantially blocking said atmospheric path between said hole in said post and said open side of said rail, comprising: a main body portion having four sides of equal length and equal width and equal thickness, said sides being joined to each other at right angles, a plurality of shoulders of uniform thickness protruding from said main body portion, said shoulders being spaced from each other along a longitudinal axis of said main body portion, each of said shoulders having a segment that is integral with one of said four sides of said main body portion, each of said segments having a continuous upper flat surface and a continuous lower flat surface, said upper and lower flat surfaces of each segment extending perpendicularly from the sides of said main body portion in parallel planes that are perpendicular to said longitudinal axis, and an end cap having a flat inner surface integral with said main body portion that closes one end of said main body portion; and

the upper flat surface of one of said segments engaging said rib inside of said rail and the lower flat surface of another of said segments engaging said ledge on the inside of said rail so as to cause a friction fit between said plug and said rail that holds said plug inside of said rail where said plug blocks the continuous atmospheric path that permits flying insects to enter said post through said hole.

9. The fence defined in claim 8, wherein said upper surface of said ledge and said lower surface of said rib are spaced apart a predetermined distance inside of said rail, said shoulders of said

plug are spaced from each at predetermined distances along the longitudinal axis of said main body portion, the predetermined distances separating said shoulders being set so that the upper flat surface of said one segment is spaced from the lower flat surface of said another segment by a distance that is slightly greater than said predetermined distance that separates said lower surface of said rib from said upper surface of said ledge, said upper flat surface of said one segment engaging said underside of said rib and said lower flat surface of said another segment engaging said upper surface of said ledge, so that said slightly greater predetermined distance separating said upper flat surface of said one segment from said lower flat surface of said another segment causes said friction fit between said plug and rail that holds said plug inside of said rail.

10. The fence defined in claim 8, wherein said shoulders are spaced from each other at substantially equal distances along said length of said main body portion

11. The fence defined in claim 8, wherein said segments of said shoulders are joined to each other at a right angle at each of their ends so that each shoulder continuously circumscribes said main body portion

12. The fence defined in claim 8, wherein said upper and lower flat surfaces of said segments have outer edges that terminate at the same distance from the sides of said main body portion.

13. The fence defined in claim 8, further comprising: said shoulders being spaced from each other at substantially equal distances along said length of said main body portion, said segments of said shoulders being joined to each other at a right angle at each of their ends so that each shoulder continuously

circumscribes said main body portion, and said upper and lower flat surfaces of said segments have outer edges that terminate at the same distance from the sides of said main body portion.

14. The fence defined in claim 8, further comprising: said main body portion of said plug being hollow with one end closed by said end cap and an opposite end open to the atmosphere, said end cap having outer peripheral edges that extend past said main body portion beyond a distance that outer edges of said flat surfaces of said segments protrude beyond the sides of said main body portion, and said inner surface of said end cap is parallel to said parallel planes of said flat surfaces of said segments and perpendicular to said longitudinal axis of said plug.

15. The fence defined in claim 8, further comprising: said main body portion of said plug being hollow with one end closed by said end cap and an opposite end open to the atmosphere, said shoulders being spaced from each other at substantially equal distances along said longitudinal axis of said main body portion, said segments of said shoulders being joined to each other at a right angle at each of their ends so that each shoulder continuously circumscribes said main body portion, said upper and lower flat surfaces of said segments having outer edges that terminate at the same distance from the sides of said main body portion, said end cap having outer peripheral edges that extend past said main body portion beyond said distance that said outer edges of said flat surfaces of said segments terminate past the sides of said main body portion, and said inner surface of said end cap being parallel to said parallel planes of said flat surfaces of said segments.

16. The fence defined in claim 8, further comprising: the flat vertical sides of said rail each having a locator notch at the open terminal end of the rail, said open terminal end being inserted into

said hole in sid post until said notches prevent further insertion by engagement with said post, said rail having openings in its horizontal flat side, fence pickets extending vertically through said openings in said rail beyond said rail, and means securing said fence pickets in said rail.

17. A method of preventing flying insects from entering openings in interconnected fence components, comprising the steps of:

providing a hollow, open bottomed, open ended fence rail that has interior surfaces exposed to the atmosphere with a longitudinally extending ledge on one of its exposed interior surfaces at its open bottom;

providing said fence rail with a longitudinal rib that extends parallel to said ledge along said one interior surface;

spacing said rib and said ledge away from each other along said one interior surface of said rail;

exposing said rib and said ledge through the open end of said rail;

providing a plug having a body with resilient parallel shoulders that protrude from said body and are separated from each other along a longitudinal axis of said body;

aligning the parallel shoulders on said plug with the exposed parallel rib and ledge at the open end of said rail;

sliding said plug into said open end of said rail in a path that is parallel to said parallel rib and ledge and perpendicular to said longitudinal axis of said body; and

continuing to slide said plug in said path within said rail so as to cause said parallel shoulders on said plug to frictionally engage

said parallel rib and ledge inside of said rail and cause said plug body to block an insect entry opening in a fence component interconnected with said rail.

18. The method of preventing flying insects from entering openings in interconnected fence components defined in claim 17, further comprising:

spacing said rib and said ledge away from each other by a first predetermined distance inside of said rail;

spacing said parallel shoulders away from each other on said plug body by a second predetermined distance that is slightly greater than said first predetermined distance that separates said rib and said ledge to thereby cause a friction fit between said plug and rail that holds said plug inside of said rail.

19. The method of preventing flying insects from entering openings in interconnected fence components defined in claim 17, further comprising:

providing each of said shoulders with an upper flat surface and a lower flat surface that is parallel to its upper flat surface;

contacting the upper flat surface of one of said parallel shoulders with a lower surface of said rib;

contacting the lower flat surface of another of said parallel shoulders with an upper surface of said ledge.

20. The method of preventing flying insects from entering openings in interconnected fence components defined in claim 17, further comprising:

providing each of said parallel shoulders with an upper flat surface and a lower flat surface that is parallel to its upper flat surface;

spacing a lower surface of said rib and an upper surface of said ledge away from each other by a first predetermined distance inside

of said rail;

spacing the upper flat surface of one of said shoulders away from the lower flat surface of another of said shoulders by a second predetermined distance that is slightly greater than said first predetermined distance that separates said rib and said ledge;

sliding said upper flat surface of said one shoulder into contact with said lower surface of said rib, while sliding said lower flat surface of said another shoulder into contact with an upper surface of said ledge so as to cause said friction fit between said plug and rail;

providing said rail with a notch that reduces its size at its open end; and

inserting said open end of said rail into an opening in a hollow fence post and sliding said rail into said hole until said notches prevent further insertion by contact with said post.